**Supplemental Materials: Sensitive Periods for Psychosocial Risk in Childhood and Adolescence and Cardiometabolic Outcomes in Young Adulthood**

**Risk quartiles at 5y, 10y, and adolescence**

Maternal depressive symptoms were assessed using (CES-D; risk quartile ≥ 22 at age 5; risk quartile > 26.25 at age 10; risk quartile ≥ 30 at adolescence). The mother reported the number of family stressors experienced using a modified Social Readjustment Rating Scale (Holmes & Rahe, 1967) (risk quartile ≥ 6 at age 5; risk quartile ≥ 7 at age 10; risk quartile ≥ 6 at adolescence). The HOME measured home support for child development (risk quartile ≤ 31 at age 5; risk quartile ≤ 32 at age 10; risk quartile ≤ 10 at adolescence). SES was measured with a modified Graffar Index (higher scores indicate lower SES; risk quartile ≥ 22 at age 5; risk quartile ≥ 20 at age 10; risk quartile ≥ 19 at adolescence) (Alvarez et al., 1985). Father absence was assigned a value of 1 if absent and 0 if present. The mother reported the number of years she attended formal education and the years of education completed by the child’s father (risk quartile < 9 years at age 5, age 10, and adolescence).

Table S1. Estimates of direct pathways from psychosocial risk at infancy, 5y, 10y, and adolescence and mean psychosocial risk to cardiometabolic risk components in young adulthood.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | *β* | *95% CI* | *p-value* |
| **Infant Psychosocial Risk** | |  |  |  |  |  |
| Randomized to iron supplementation | | 0.11\*\* | 0.04, 0.17 | 0.002 |
| Participated in Study 2 | | 0.11\*\* | 0.04, 0.17 | 0.001 |
| **5y Psychosocial Risk** | |  |  |  |
| Infant psychosocial risk | | 0.60\*\*\* | 0.56, 0.64 | <0.001 |
| **10y Psychosocial Risk** | |  |  |  |
| 5y psychosocial risk | | 0.64\*\*\* | 0.60, 0.69 | <0.001 |
| **Adolescent Psychosocial Risk** | |  |  |  |
| 10y psychosocial risk | | 0.62\*\*\* | 0.58, 0.66 | <0.001 |
| Female | | 0.05† | 0.00, 0.10 | 0.070 |
| Participated in Study 2 | | 0.07\* | 0.01, 0.12 | 0.016 |
| **Mean Psychosocial Risk** | |  |  |  |
| Randomized to iron supplementation | | 0.08\* | 0.01, 0.14 | 0.032 |
| Participated in Study 2 | | 0.09\*\* | 0.03, 0.16 | 0.006 |
| **BMI and Waist Circumference Composite** | |  |  |  |
| Infant psychosocial risk | | 0.07† | -0.01, 0.15 | 0.099 |
| Mean psychosocial risk | | 0.01 | -0.10, 0.11 | 0.915 |
| Birthweight | | 0.08\*\* | 0.03, 0.13 | 0.003 |
| Age | | 0.05\*\* | 0.02, 0.08 | 0.002 |
| Education level | | -0.04\*\* | -0.07, -0.01 | 0.007 |
| Parent CVD risk factors | | 0.11\*\*\* | 0.05, 0.18 | <0.001 |
| Weight change from 0-6 months | | 0.06\*\*\* | 0.03, 0.08 | <0.001 |
| Depressive symptoms | | 0.07\* | 0.01, 0.13 | 0.021 |
| **Body Fat Composite (DXA)** | |  |  |  |
| Infant psychosocial risk | | 0.08† | -0.01, 0.17 | 0.087 |
| Mean psychosocial risk | | -0.03 | -0.14, 0.08 | 0.599 |
| Birthweight | | 0.07\* | 0.01, 0.12 | 0.019 |
| Parent CVD risk factors | | 0.11\*\* | 0.05, 0.18 | 0.001 |
| Depressive symptoms | | 0.08\* | 0.01, 0.14 | 0.019 |
| **Blood Pressure Composite** | |  |  |  |
| Mean psychosocial risk | | -0.02 | -0.09, 0.05 | 0.617 |
| Education level | | -0.10\*\* | -0.16, -0.04 | 0.002 |
| Parent CVD risk factors | | 0.13\*\*\* | 0.07, 0.19 | <0.001 |

*Note.* All estimates reported are standardized estimates and 95% confidence intervals (CI) for each of the direct pathways to young adult cardiometabolic risk composites. Dependent variables are in bold with independent variables and associated standardized (*β*) coefficients. *Note.* Covariates were included in the final model if they were associated with the model variable at *p* < .10, and psychosocial risk variables (except mean risk) were only included as predictors of cardiometabolic risk if they were associated at *p* < .10. †*p* < 0.10, \**p*<.05. \*\**p*<.01. \*\*\**p*<.001.

Table S2. Estimates of direct pathways from psychosocial risk at infancy, 5y, 10y, and adolescence and maximum psychosocial risk at any time point to cardiometabolic risk components in young adulthood.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | *β* | *95% CI* | *p-value* |
| **Infant Psychosocial Risk** | |  |  |  |  |  |
| Randomized to iron supplementation | | 0.11\*\* | 0.04, 0.17 | 0.002 |
| Participated in Study 2 | | 0.11\*\* | 0.04, 0.17 | 0.001 |
| **5y Psychosocial Risk** | |  |  |  |
| Infant psychosocial risk | | 0.60\*\*\* | 0.56, 0.64 | <0.001 |
| **10y Psychosocial Risk** | |  |  |  |
| 5y psychosocial risk | | 0.64\*\*\* | 0.60, 0.69 | <0.001 |
| **Adolescent Psychosocial Risk** | |  |  |  |
| 10y psychosocial risk | | 0.62\*\*\* | 0.58, 0.66 | <0.001 |
| Female | | 0.05† | 0.00, 0.10 | 0.070 |
| Participated in Study 2 | | 0.07\* | 0.01, 0.12 | 0.016 |
| **Maximum Psychosocial Risk** | |  |  |  |
| Randomized to iron supplementation | | 0.07\* | 0.01, 0.14 | 0.034 |
| Participated in Study 2 | | 0.08\* | 0.02, 0.15 | 0.012 |
| **BMI and Waist Circumference Composite** | |  |  |  |
| Infant psychosocial risk | | 0.06† | -0.01, 0.13 | 0.070 |
| Maximum psychosocial risk | | 0.02 | -0.06, 0.10 | 0.647 |
| Birthweight | | 0.08\*\* | 0.03, 0.13 | 0.003 |
| Age | | 0.05\*\* | 0.02, 0.08 | 0.002 |
| Education level | | -0.04\*\* | -0.07, -0.01 | 0.006 |
| Parent CVD risk factors | | 0.11\*\*\* | 0.05, 0.18 | <0.001 |
| Weight change from 0-6 months | | 0.06\*\*\* | 0.03, 0.08 | <0.001 |
| Depressive symptoms | | 0.07\* | 0.01, 0.13 | 0.022 |
| **Body Fat Composite (DXA)** | |  |  |  |
| Infant psychosocial risk | | 0.07† | -0.01, 0.15 | 0.080 |
| Maximum psychosocial risk | | -0.01 | -0.10, 0.08 | 0.828 |
| Birthweight | | 0.07\* | 0.01, 0.12 | 0.020 |
| Parent CVD risk factors | | 0.11\*\* | 0.05, 0.18 | 0.001 |
| Depressive symptoms | | 0.08\* | 0.01, 0.14 | 0.019 |
| **Blood Pressure Composite** | |  |  |  |
| Maximum psychosocial risk | | -0.01 | -0.07, 0.06 | 0.782 |
| Education level | | -0.10\*\* | -0.16, -0.04 | 0.002 |
| Parent CVD risk factors | | 0.13\*\*\* | 0.07, 0.19 | <0.001 |

*Note.* All estimates reported are standardized estimates and 95% confidence intervals (CI) for each of the direct pathways to young adult cardiometabolic risk composites. Dependent variables are in bold with independent variables and associated standardized (*β*) coefficients. *Note.* Covariates were included in the final model if they were associated with the model variable at *p* < .10, and psychosocial risk variables (except maximum risk) were only included as predictors of cardiometabolic risk if they were associated at *p* < .10. †*p* < 0.10, \**p*<.05. \*\**p*<.01. \*\*\**p*<.001.

Table S3. Estimates of direct pathways from psychosocial risk at infancy, 5y, 10y, and adolescence and mean psychosocial risk to number of MetS components in young adulthood.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | *β* | *95% CI* | *p-value* |
| **Infant Psychosocial Risk** | |  |  |  |  |  |
| Randomized to iron supplementation | | 0.11\*\* | 0.04, 0.17 | 0.002 |
| Participated in Study 2 | | 0.11\*\* | 0.04, 0.17 | 0.001 |
| **5y Psychosocial Risk** | |  |  |  |
| Infant psychosocial risk | | 0.60\*\*\* | 0.56, 0.64 | <0.001 |
| **10y Psychosocial Risk** | |  |  |  |
| 5y psychosocial risk | | 0.64\*\*\* | 0.60, 0.69 | <0.001 |
| **Adolescent Psychosocial Risk** | |  |  |  |
| 10y psychosocial risk | | 0.62\*\*\* | 0.58, 0.66 | <0.001 |
| Female | | 0.05† | 0.00, 0.10 | 0.068 |
| Participated in Study 2 | | 0.07\* | 0.01, 0.12 | 0.017 |
| **Mean Psychosocial Risk** | |  |  |  |
| Randomized to iron supplementation | | 0.08\* | 0.01, 0.14 | 0.027 |
| Participated in Study 2 | | 0.09\*\* | 0.03, 0.16 | 0.006 |
| **Number of MetS Components** | |  |  |  |
| Infant psychosocial risk | | 0.08† | -0.01, 0.17 | 0.087 |
| Mean psychosocial risk | | -0.01 | -0.11, 0.09 | 0.822 |
| Female | | 0.08\* | 0.02, 0.14 | 0.011 |
| Age | | 0.08\*\* | 0.02, 0.15 | 0.009 |
| Randomized to iron supplementation | | -0.12\*\* | -0.19, -0.05 | 0.001 |
| Participated in Study 2 | | -0.11\*\* | -0.17, -0.04 | 0.001 |
| Parent CVD risk factors | | 0.11\*\*\* | 0.05, 0.17 | <0.001 |
| Perceived stress in young adulthood | | -0.10\* | -0.18, -0.01 | 0.025 |
| Depressive symptoms | | 0.19\*\*\* | 0.10, 0.28 | <0.001 |

*Note.* All estimates reported are standardized estimates and 95% confidence intervals (CI) for each of the direct pathways to number of MetS components. Dependent variables are in bold with independent variables and associated standardized (*β*) coefficients. *Note.* Covariates were included in the final model if they were associated with the model variable at *p* < .10, and psychosocial risk variables (except mean risk) were only included as predictors of cardiometabolic risk if they were associated at *p* < .10. †*p* < 0.10, \**p*<.05. \*\**p*<.01. \*\*\**p*<.001.

Table S4. Estimates of direct pathways from psychosocial risk at infancy, 5y, 10y, and adolescence and maximum psychosocial risk at any time point to number of MetS components in young adulthood.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | *β* | *95% CI* | *p-value* |
| **Infant Psychosocial Risk** | |  |  |  |  |  |
| Randomized to iron supplementation | | 0.11\*\* | 0.04, 0.17 | 0.001 |
| Participated in Study 2 | | 0.11\*\* | 0.04, 0.17 | 0.001 |
| **5y Psychosocial Risk** | |  |  |  |
| Infant psychosocial risk | | 0.60\*\*\* | 0.56, 0.64 | <0.001 |
| **10y Psychosocial Risk** | |  |  |  |
| 5y psychosocial risk | | 0.64\*\*\* | 0.60, 0.69 | <0.001 |
| **Adolescent Psychosocial Risk** | |  |  |  |
| 10y psychosocial risk | | 0.62\*\*\* | 0.58, 0.66 | <0.001 |
| Female | | 0.05† | 0.00, 0.10 | 0.068 |
| Participated in Study 2 | | 0.07\* | 0.01, 0.12 | 0.017 |
| **Maximum Psychosocial Risk** | |  |  |  |
| Randomized to iron supplementation | | 0.07\* | 0.01, 0.14 | 0.030 |
| Participated in Study 2 | | 0.08\* | 0.02, 0.15 | 0.011 |
| **Number of MetS Components** | |  |  |  |
| Infant psychosocial risk | | 0.08\* | 0.003, 0.16 | 0.043 |
| Maximum psychosocial risk | | -0.02 | -0.11, 0.07 | 0.684 |
| Female | | 0.08\* | 0.02, 0.14 | 0.012 |
| Age | | 0.08\*\* | 0.02, 0.15 | 0.009 |
| Randomized to iron supplementation | | -0.12\*\* | -0.19, -0.05 | 0.001 |
| Participated in Study 2 | | -0.11\*\* | -0.17, -0.04 | 0.001 |
| Parent CVD risk factors | | 0.11\*\*\* | 0.05, 0.17 | <0.001 |
| Perceived stress in young adulthood | | -0.10\* | -0.18, -0.01 | 0.024 |
| Depressive symptoms | | 0.19\*\*\* | 0.10, 0.28 | <0.001 |

*Note.* All estimates reported are standardized estimates and 95% confidence intervals (CI) for each of the direct pathways to number of MetS components. Dependent variables are in bold with independent variables and associated standardized (*β*) coefficients. *Note.* Covariates were included in the final model if they were associated with the model variable at *p* < .10, and psychosocial risk variables (except maximum risk) were only included as predictors of number of MetS components if they were associated at *p* < .10. †*p* < 0.10, \**p*<.05. \*\**p*<.01. \*\*\**p*<.001.